

WHAT IS CLAIMED IS:

1. An unbalance disc detection apparatus comprising:  
a photo detector which receives, at its photo reception  
region, reflection light from a disc on which a laser light is  
5 irradiated;

a push-pull signal calculation section which obtains  
change of a light quantity detected by the photo reception region  
as a push-pull signal;

a tracking drive control section which turns on and off  
10 a tracking drive mechanism for tracing, in a radial direction  
of the disc, an objective lens for projecting the reflection  
light of the laser light on the photo reception region; and  
an unbalance disc discriminating section which  
discriminates whether or not a level of the push-pull signal  
15 exceeds a threshold value in an off-state of the tracking drive  
mechanism to discriminate an unbalance disc.

2. The unbalance disc detection apparatus according  
to claim 1, wherein the unbalance disc is discriminated with  
reference to a threshold value which is changed in accordance  
20 with the measurement rotation speed.

3. The unbalance disc detection apparatus according  
to claim 1, wherein the disc is driven by a motor.

4. The unbalance disc detection apparatus according  
to claim 1, wherein the threshold value is set in correspondence  
25 to a predetermined measurement rotation speed.

5. An unbalance disc detection method comprising:  
irradiating a laser light on the disc;  
receiving the laser light reflected from the disc by a  
photo detector having a photo reception region;

5 obtaining change of a light quantity detected by the photo  
reception region as a push-pull signal in an off-state of a  
tracking drive mechanism for tracing, in a radial direction of  
the disc, an objective lens for projecting the reflection light  
of the laser light on the photo reception region; and

10 discriminating whether or not a level of the push-pull  
signal exceeds a threshold value to discriminate an unbalance  
disc.

6. The unbalance disc detection method according to  
claim 5, wherein when a level of the push-pull signal does not  
15 exceed the threshold value, a measurement rotation speed is  
updated and the unbalance disc is discriminated with reference  
to a threshold value set according to the updated measurement  
rotation speed.

7. The unbalance disc detection method according to  
20 claim 4, further comprising driving the disc by a motor.

8. The unbalance disc detection method according to  
claim 4, wherein the threshold value is set in correspondence  
to a predetermined measurement rotation speed.